

ENCODING OPTIMIZATION TECHNIQUES FOR ENCODING PROGRAM GRID SECTION OF SERVER-CENTRIC INTERACTIVE PROGRAMMING GUIDE

ABSTRACT OF THE DISCLOSURE

5 An interactive program guide (IPG) may include a program grid section and a multimedia section. The program grid section typically contains program information organized in a grid with a time axis and a channel axis. The multimedia section may include video for advertisement, previews, and other purposes. Such an IPG may be rendered and encoded at a server and distributed to client terminals in the form of compressed bit streams.

10 For certain IPGs, the program grid section may comprise alternating stripes of background with different shades (lighter/darker) or different colors. Typically, the alternating background stripes may be used to visually separate text information into timeslots or channels.

15 Blank areas of the background may be "skip" encoded to "save" a portion of the bit rate. Meanwhile, the quantizer stepsize for encoding that section may be lowered so as to utilize the saved bits to improve the viewing quality of the program grid section. Additionally or alternatively, the quantization matrix for encoding the program grid section may be optimized for encoding text (rather than being, for example, a standard quantization matrix).

20 Encoding may be performed on the program grid section such that encoded macroblocks do not cross a border between two stripes. In other words, each encoded macroblock in the program grid section may be within a single stripe. Additionally or alternatively, low-pass frequency filtering may be applied on the background stripes. Such low-pass filtering reduces visual defects due to ringing from edges between stripes.